

WHAT IS CLAIMED IS:

1. A substrate processing apparatus comprising:

a substrate processing unit for performing a predetermined process on a
5 substrate; and

a substrate transfer unit for holding a container for storing a substrate therein
and transferring said substrate stored in said container to said substrate processing unit,
wherein

said substrate transfer unit includes:

10 a mounting part for mounting said container thereon to transfer said substrate
stored in said container to said substrate processing unit;

a first shelf line containing a plurality of first shelves arranged in the vertical
direction at a first predetermined interval, each being capable of mounting said container
thereon;

15 a second shelf line provided between said mounting part and said first shelf line
and containing a plurality of second shelves arranged in the vertical direction at a second
predetermined interval, each being capable of mounting said container thereon;

a displacing element for displacing at least one of a target one of said plurality
of first shelves in said first shelf line and a corresponding one of said plurality of second
20 shelves relative to the other in the vertical direction, thereby ensuring a container
transport path of a height greater than said second predetermined interval in said second
shelf line; and

a transport element for transporting said container mounted on said target one
of said plurality of first shelves to said mounting part in the horizontal direction along
25 said container transport path created by said displacing element while holding said

container.

2. The substrate processing apparatus according to claim 1, wherein
said displacing element is connected to at least part of said plurality of second
5 shelves for displacing said at least part of said plurality of second shelves in the vertical
direction.

3. The substrate processing apparatus according to claim 2, wherein
said displacing element includes a plurality of displacing mechanisms
10 connected to said plurality of second shelves, respectively, each being capable of
displacing a corresponding one of said plurality of second shelves individually in the
vertical direction.

4. The substrate processing apparatus according to claim 3, wherein
15 the number of shelves in said second shelf line is less than that of shelves in
said first shelf line in the vertical direction, and
displacement of said plurality of second shelves is performed by said displacing
element within the height of said first shelf line in the vertical direction.

20 5. The substrate processing apparatus according to claim 4, wherein
the number of shelves in said second shelf line is less by one than that of
shelves in said first shelf line in the vertical direction, and
the amount of displacement of each of said plurality of second shelves
performed by said displacing element corresponds to said second predetermined interval.

6. A substrate processing apparatus comprising:

a substrate processing unit for performing a predetermined process on a substrate; and

a substrate transfer unit for holding a container for storing a substrate therein
5 and transferring said substrate stored in said container to said substrate processing unit,
wherein

said substrate transfer unit includes:

a mounting part for mounting said container thereon to transfer said substrate
stored in said container to said substrate processing unit;

10 a two-dimensional array of shelves where a plurality of shelves each being
capable of mounting said container thereon are arranged in a matrix in the vertical and
horizontal directions, said two-dimensional array of shelves having at least one shelf-less
part on the side of said mounting part;

a displacing element for displacing at least one of said plurality of shelves in
15 said two-dimensional array of shelves in the vertical direction, thereby moving said
shelf-less part; and

a transporting element for transporting said container to said mounting part in
the horizontal direction through said shelf-less part moved by said displacing element
while holding said container.